



# ALABAMA WINTER WEATHER AWARENESS WEEK

**November 15th to November 19th, 2010**

The National Weather Service, in cooperation with the Alabama Emergency Management Agency, will observe the week of November 15<sup>th</sup> through November 19<sup>th</sup>, 2010, as Winter Weather Awareness Week in the state of Alabama, as proclaimed by Governor Bob Riley.

While the frequency of extreme winter weather events is relatively small in Alabama, winter weather can cause death, injury, and property damage. With the start of each new season, preparation is the key to lessening the dangers and hazards associated with winter weather. Please join us in promoting winter weather safety during this year's Winter Weather Awareness Week.



NATIONAL WEATHER SERVICE  
320A SPARKMAN DRIVE  
HUNTSVILLE, AL 35805

## Welcome to the Winter Season!

Winter Weather Awareness Week is one of several annual awareness campaigns intended to draw attention to local weather hazards, and this week highlights winter threats such as ice, snow, extreme cold and even tornadoes. While the National Weather Service leads this event, many important partners contribute to this worthwhile public service venture. Specifically, the National Weather Service would like to recognize the Alabama Emergency Management Agency for their significant contributions toward the success of the 2010 Alabama Winter Weather Awareness Week.

The week will officially kick-off with a media conference on Monday, November 15<sup>th</sup>, at 10:00 AM at the Madison County Emergency Management Agency's Emergency Operations Center, at 320 Fountain Drive, in Huntsville. Representatives from the National Weather Service, the Alabama Emergency Management Agency, and the local media will be on hand to officially recognize 2010 Alabama Winter Weather Awareness Week.



## What is La Niña?

*How do winters set up across the Southeast in a La Niña pattern?*

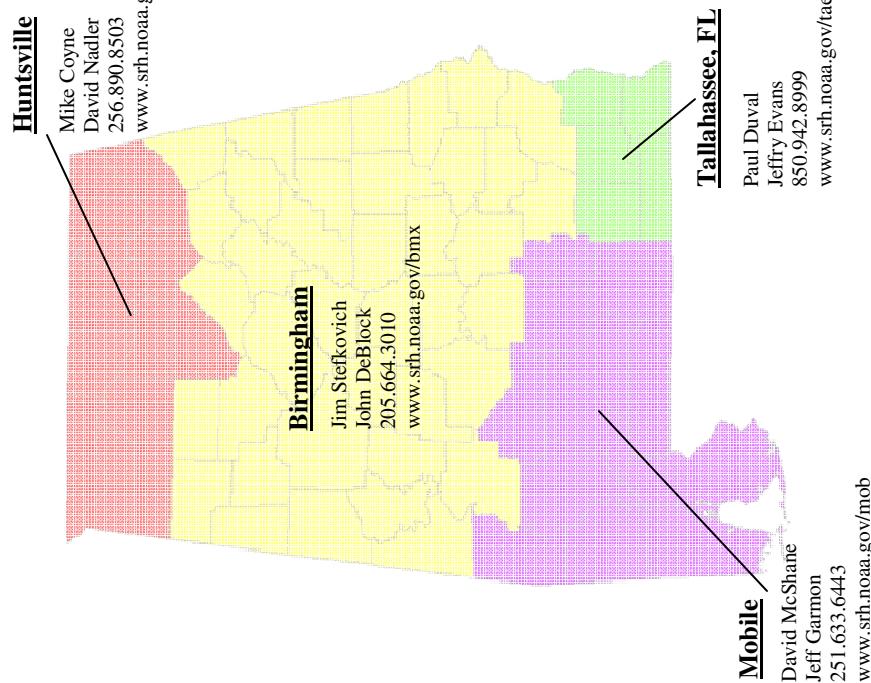
Many have likely heard the terms "La Niña" or "El Niño" thrown around before but what exactly is La Niña and El Niño? La Niña is characterized by unusually cold ocean temperatures in the Equatorial Pacific, compared to El Niño, which is characterized by unusually warm ocean temperatures in the Equatorial Pacific. As we head into the 2010-11 winter season, a moderate to potentially strong La Niña pattern will exist. So how does this relate to the weather across the Southeast region, particularly Alabama?

Because of the relative infrequency of La Niña events (20 periods since 1950), it is difficult to quantify what the winter weather pattern will be across Alabama. During La Niña winters, the Southeast region is expected to be drier than normal and warmer than normal. However, extreme climate variability can exist across the state, especially with precipitation. For instance, average precipitation over a 3-month period (Jan/Feb/Mar) is expected to be slightly above normal across extreme northern Alabama. By contrast, precipitation is expected to be much below normal across extreme southern Alabama (along the Gulf coast). Other recent research has shown that based on the typical La Niña "storm track", the number of potential severe weather episodes can increase during the winter months across parts of Tennessee, Mississippi and Alabama.

Whatever the winter brings this season, Alabamians should always be prepared for just about any type of weather!

## Looking For More Information?

Several National Weather Services Offices serve Alabama, working together to provide continuous weather forecast and warning information no matter where you are in the state. Each of the four offices covers a specific set of counties; to reach the office responsible for your area, please consult the map and relevant contact information.



In addition to each National Weather Service office, local Emergency Management Agencies and nearby Red Cross Chapters are also available for interviews and weather awareness programs.

Yasamie Richardson (**AEMA in Clanton**): 205.280-2275

Cindy Bahri (**American Red Cross**): 205.458.8263

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## NOAA Weather Radio

## Winter Weather Safety Tips

The NWS utilizes NOAA Weather Radio All Hazards as a 24-hour a day, 7-day a week source of weather information. While routine programming offers the latest forecast, hazardous weather outlook, and current observations, the broadcast cycle is automatically updated whenever a watch, warning, or other significant weather statement is issued by any of the NWS offices in Alabama.

NOAA Weather Radio All Hazards is broadcast on certain unique frequencies, and only radios capable of receiving very high frequencies (VHF) will receive the programming. Refer to the chart below for a list of frequencies used in Alabama, as well as the locations of 21 transmitters across the state. While the closest transmitter to your location may be in the next county, approximately 95 percent of people in Alabama are within the listening range.

When hazardous winter weather threatens Alabama, local NWS offices will issue winter (weather) watches, warnings and advisories. These products will automatically play on your local NOAA Weather Radio broadcast, and when certain weather-related warnings are issued, your radio will sound an audible alarm alerting you of the impending event.

Arab	162.525	Jackson	162.500
Auburn	162.525	Meridian, MS	162.550
Birmingham	162.550	Mobile	162.550
Columbus, GA	164.400	Montgomery	162.400
Cullman	162.450	Mt. Cheaha	162.475
Demopolis	162.475	Oneonta	162.425
Dozier	162.550	Selma	162.450
Florence	162.475	Texarkana	162.475
Fort Payne	162.500	Tuscaloosa	162.400
Greenville	162.425	Winfield-Guin	162.525
Huntsville	162.400		

### In General...

Keep ahead of winter weather by listening to the latest weather warnings and bulletins on NOAA Weather Radio, local radio or television. Be alert to changing conditions and avoid unnecessary travel.

### In the home...plan ahead!

Check battery powered equipment, and stock extra batteries for flashlights and a portable television or radio. Also, check emergency cooking facilities.

Check your food and stock an extra supply. Your supplies should include food that requires no cooking or refrigeration in case of power failures. Consider high energy foods such as dried fruit or candy. Don't forget prescription medicines, first aid supplies, and other specialty items.

Check your supply of heating fuel, but prevent fire hazards due to overheated coal or oil-burning stoves, fireplaces, heaters, or furnaces. Emergency responders can be hampered by extreme weather conditions, and may not be able to respond quickly—arrange for emergency heat in case of an extended power failure.

Stay indoors during storms and cold snaps. Elderly persons, children, and those in bad health may be especially susceptible to cold weather. Avoid overexertion, especially if shoveling snow.

Dress to fit the season. Loose, layered clothing will keep you warm, and a hat and mittens will protect your extremities.

Winterize your home by caulking around openings, installing storm windows, and adding insulation.

Don't forget your pets or livestock. Move animals to sheltered areas. For pets, bring them indoors or provide some form of heat. Provide fresh water since many pets die from dehydration in winter storms.

### In your vehicle...be prepared!

Get your car winterized before the storm season begins. Maintain a checklist of the preparation required. Keep water out of your fuel by keeping your gas tank full.

Carry a winter storm car kit, especially if you plan cross country travel or anticipate travel in northern states. Items to consider include a mobile phone and charger, blankets or sleeping bags, flashlights and batteries, first aid kit, non-perishable foods, extra clothing, window scraper, water, road maps, small shovel, and kitty litter or sand for traction.

If the storm exceeds or even tests your driving limitations, seek available shelter immediately. Plan your travel and select primary and alternate routes. Check the latest weather information before departing, and drive carefully and defensively. Avoid traveling alone, and be sure someone knows your travel plans and route of travel.

## Severe weather during the Winter months

Severe thunderstorms and deadly tornadoes can occur during the winter months of December, January and February. Since 1999, nearly 90 tornadoes have hit the state of Alabama in the winter months, an average of nearly 1 per year. The 2008 Super Tuesday (February 5-6) tornado outbreak is a perfect example of this potential threat. This event resulted in 57 fatalities across the Mid South and Tennessee Valley, including 5 in Alabama. Of the 87 tornadoes that touched down across nine states, there were five violent (EF4-5) tornadoes - two which raked across North Alabama during the early morning hours of February 6.



*Damage from February 6th EF-4 tornadoes in Lawrence and Jackson Counties*



# Winter Weather Terminology

**Winter Storm Warning:** Issued when a combination of significant accumulations of snow, freezing rain, or sleet is expected. Winter Storm Warnings are usually issued within 24 hours before the event is expected.

**Winter Storm Watch:** Alerts the public to the potential for winter storm conditions within the next 12 to 36 hours.

**Winter Weather Advisory:** Issued when accumulations of snow, freezing rain/drizzle, or sleet are expected to cause hazardous driving conditions.

**Wind Chill Advisory:** Issued when the wind chill temperatures are expected to range from zero to ten below zero.

**Wind Chill Warning:** Issued when wind chill temperatures are expected to be colder than ten below zero.

**Snow Flurries:** Snow falling for short durations with very little or no accumulation.

**Snow Showers:** Snow falling at varying intensities for a brief time. Some accumulation is possible.

**Significant (heavy) Snow:** In Alabama, snow accumulations greater than 2 inches in 12 hours. Sleet: Rain drops that freeze into ice pellets before reaching the ground. Sleet usually bounces when hitting a surface and does not stick to objects. However, it can accumulate like snow and cause a hazard to motorists and pedestrians.

**Freezing Rain:** Rain that falls onto a surface with a temperature below freezing. This causes it to freeze to surfaces, such as trees, cars, and roads, forming a coating or glaze of ice. Even small accumulations of ice can cause a significant hazard.

## Alabama Winter Weather Facts

Coldest temperatures (major cities):

- -11F Huntsville / January 30, 1966 & January 21, 1985
- -10F Birmingham / February 13, 1899
- -5F Montgomery / February 13, 1899
- -1F Mobile / February 13, 1899

Highest 24-hour snowfall (major cities):

- 17.1 inches Huntsville / December 31-January 1, 1964
- 13 inches Birmingham / March 12-13, 1993
- 11 inches Montgomery / December 5-6, 1886
- 6 inches Mobile / February 14-15, 1895

Average annual snowfall (2009-10 amount):

- Huntsville 2.5 inches (3.2 inches)
- Birmingham 1.4 inches (1.7 inches)
- Montgomery 0.5 inches (3.5 inches)
- Mobile 0.4 inches (0.3 inches)

# Interpreting “Wind Chill”

As wind speeds increase during the winter months, they can make the temperature outside feel even colder than it actually reads on a thermometer. This cooling factor is given a name—the wind chill effect.

	Temperature (°F)									
Calm	40	35	30	25	20	15	10	5	0	-5
5 mph	5	36	31	25	19	13	7	1	-5	-11
10 mph	10	34	27	21	15	9	3	-4	-10	-16
15 mph	15	32	25	19	13	6	0	-7	-13	-19
20 mph	20	30	24	17	11	4	-2	-9	-15	-22
25 mph	25	29	23	16	9	3	-4	-11	-17	-24
30 mph	30	28	22	15	8	1	-5	-12	-19	-26
35 mph	35	28	21	14	7	0	-7	-14	-21	-27
40 mph	40	27	20	13	6	-1	-8	-15	-22	-29
45 mph	45	26	19	12	5	-2	-9	-16	-23	-30
50 mph	50	26	19	12	4	-3	-10	-17	-24	-31
55 mph	55	25	18	11	4	-3	-11	-18	-25	-32
60 mph	60	25	17	10	3	-4	-11	-19	-26	-33

Frostbite Times:   ■ 30 minutes   ■ 10 minutes   ■ 5 minutes

To determine the wind chill using the provided chart, find the actual outside temperatures on the top line, and read down the column on the left corresponding to the wind speed. Where the row and column intersect, read the wind chill value. The colors indicate how quickly frostbite can occur.



## First & Last Freeze Dates (Means and Extremes)

City	Avg	Record	Avg	Record
Huntsville	Nov 5	Oct 9, 2000	Mar 30	May 2, 1909
Birmingham	Nov 8	Oct 18, 1948	Mar 23	Apr 23, 1986
Montgomery	Nov 17	Oct 20, 1989	Mar 8	Apr 13, 1940
Mobile	Nov 26	Oct 28, 1957	Feb 27	Apr 13, 1940

